NEW ENGLAND FARMER,

AND HORTICULTURAL REGISTER.

PUBLISHED BY JOSEPH BRECK & CO., NO. 52 NORTH MARKET STREET, (AGRICULTURAL WAREHOUSE.)—ALLEN PUTNAM, EDITOR.

VOL. XX.] BOSTON, WEDNESDAY EVENING, JUNE 1, 1842. [NO. 48.

N. E. FARMER.

GEOMETERS, CANKER-WORMS, &c.

The caterpillars of the *Geometræ* of Linnæus, earth-measurers, as the term implies, or geometers, span-worms, and loopers, have received these several names from their peculiar manner of moving, in which they seem to measure or span over the ground, step by step, as they proceed. Most of these caterpillars have only ten legs; namely, six, which are jointed and tapering, under the fore part of the body, and four fleshy proplegs, at the hinder extremity; the three intermediate pairs of proplegs being wanting. Consequently, in creeping, they arch up the back while they bring forward the hinder part of the body, and then, resting on their hind legs, stretch out to their full length, in a straight line, before taking another step with their hind legs. Some of the geometers have twelve or fourteen legs; but the additional proplegs are so short that the caterpillars cannot use them in creeping, and their motions are the same as those that have only ten legs. Some caterpillars with fourteen legs, and wanting only the terminal pair of proplegs, are placed in this tribe on account of the resemblance of their moths to those of the true geometers. The latter live on trees and bushes, and most of them undergo their transformations upon or in the ground, to reach which, by travelling along the branches and down the stem, would be a long and tedious journey to them, on account of the deficiency of their legs, and the slowness of their gait. But they are not reduced to this necessity; for they have the power of letting themselves down from any height, by means of a silken thread, which they spin from their mouths while falling. Whenever they are disturbed, they make use of this faculty, drop suddenly, and hang suspended, till the danger is past, after which they climb up again by the same thread. In order to do this, the span-worm bends back its head and catches hold of the thread above its head with one of the legs of the third segment, then raising its head it seizes the thread with its jaws and fore legs, and, by repeating the same operations with tolerable rapidity, it soon reaches its former station on the tree. These span-worms are naked, or only thinly covered with very short down; they are mostly smooth, but sometimes have warts or irregular projections on their backs. They change their color usually as they grow older, and sometimes of one uniform color, nearly resembling the bark of the plants on which they are found. When not eating, many of them rest on the two hindmost pairs of legs against the side of a branch, with the body extended from the branch, so that they might be mistaken for a twig of the tree; and in this position they will often remain for hours together. When about to transform, most of these insects descend from the plants on which they live, and either bury themselves in the ground, or conceal themselves on the surface, under a slight covering of leaves fastened together with silken threads. Some make more regular cocoons, which, however, are very thin, and generally more or less covered on the outside with leaves. The cocoons of the European-tailed Geometer *(Ourapteryx sambucaria,)* which lives on the elder, and of our chain-dotted Geometer *(Geometra catenaria,)* which is found on the wood-wax, are made with regular meshes, like net-work, through which the insects may be seen. A very few of the span-worms fasten themselves to the stems of plants, and are changed to chrysalids, which hang suspended, without the protection of any outer covering.

In their perfected state, these insects are mostly slender-bodied moths, with tapering attennæ, which are often feathered in the males. Their feelers are short and slender; the tongue is short and weak; the thorax is not crested; the wings are large, thin, and delicate—sometimes angular, and often marked with one or two dark-colored oblique bands. They generally rest with the wings slightly inclined and almost horizontal; some with them extended, and others with the hind wings covered by the upper pair. A very few carry their wings like the skippers. Some of the females are without wings, and are distinguished also by the oval and robust form of their bodies. These moths are most active in the night; but some of them may be seen flying in thickets during the day time. They are very short-lived, and die soon after their eggs are laid.

Those kinds whereof the females are wingless, or have only very short, scale-like wings, and naked attennæ, while the males have large, entire wings, and feathered or downy antennæ, seem to form a distinct group, which may be named Hybernians *(Hyberniadæ,)* from the principal genus included therein. The caterpillars have only ten legs, six before and four behind; and they undergo their transformations in the ground. The insects called canker-worms, in this country, are of this kind. The moths, from which they are produced, belong to the genus *Anisopteryx*, (literally unequal wing,) so named because in some species the wings in the two sexes are very unequal in size, and in others the females are wingless. In the late Professor Peck's "Natural History of the Canker-worm," which was published among the papers of the Massachusetts Society for Promoting Agriculture, and obtained a prize from the Society, this insect is called *Phalæna vernata*, on account of its common appearance in the spring, and also to distinguish it from the winter moth *(Phalæna* or *Cheimatobia brumata)* of Europe. In the male canker-worm moth the antennæ have a very narrow, and almost downy edging, on each side, hardly to be seen with the naked eye. The feelers are minute, and do not extend beyond the mouth. The tongue is not visible. The wings are large, very thin and silky; and, when the insect is at rest, the fore wings are turned back, entirely cover the hind wings, and overlap on their inner edges. The fore wings are ash-colored, with a distinct whitish spot on the front edge, near the tip; they are crossed by two jagged, whitish bands, along the sides of which there are several blackish dots; the outermost band has an angle near the front edge, within which there is a short, faint, blackish line; and there is a row of black dots along the outer margin, close to the fringe. The hind wings are pale ash colored, with a faint blackish dot near the middle. The wings expand about one inch and a quarter. This is the usual appearance of the male, in its most perfect condition; by which it will be seen that it closely resembles the *Anisopteryx Æscularia* of Europe. Compared with the latter, I find that our canker-worm moth is rather smaller, the wings are darker, proportionally shorter and more obtuse, the white bands are less distinct, and are often entirely wanting, in which case only the whitish spot near the tip remains, the hind wings are more dusky, and the feelers are grey instead of being white. Specimens, of a rather smaller size, are sometimes found, resembling the figure and description given by Professor Peck, in which the whitish bands and spot are wanting, and there are three interrupted dusky lines across the fore wings, with an oblique blackish dash near the tip. Perhaps they constitute a different species from that of the true canker worm moth. Should this be the case, the latter may be called *Anisopteryx pometaria*, or the Anisopteryx of the orchard, while the former should retain the name originally given to it by Professor Peck. The female is wingless, and its antennæ are short, slender, and naked. Its body approaches to an oval form, but tapers, and is turned up behind. It is dark ash-colored above, and grey beneath.

It was formerly supposed that the canker-worm moths came out of the ground only in the spring. It is now known that many of them rise in the autumn and in the early part of the winter. In mild and open winters I have seen them in every month from October to March. They begin to make their appearance after the first hard frosts in the autumn, usually towards the end of October, and they continue to come forth, in greater or smaller numbers, according to the mildness or severity of the weather after the frosts have begun. Their general time of rising is in the spring, beginning about the middle of March, but sometimes before, and sometimes after this time; and they continue to come forth for the space of about three weeks. It has been observed that there are more females than males among those that appear in the autumn and winter, and that the males are most abundant in the spring. The sluggish females instinctively make their way towards the nearest trees, and creep slowly up their trunks. In a few days afterwards they are followed by the winged and active males, which flutter about and accompany them in their ascent, during which the insects pair. Soon after this, the females lay their eggs upon the branches of the trees, placing them on their ends, close together in rows, forming clusters of from sixty to one hundred eggs or more, which is the number usually laid by each female. The eggs are glued to each other and to the bark, by a greyish varnish, which is impervious to water; and the clusters are thus securely fastened in the forks of the small branches, or close to the young twigs and buds. Immediately after the insects have thus provided for a succession of their kind, they begin

to languish, and soon die. The eggs are usually hatched between the first and the middle of May, or about the time that the red currant is in blossom, and the young leaves of the apple tree begin to start from the bud and grow. The little canker-worms, upon making their escape from the eggs, gather upon the tender leaves, and, on the occurrence of cold and wet weather, creep for shelter into the bosom of the bud, or into the flowers, when the latter appear. As this treatise may fall into the hands of persons who are not acquainted with the habits and devastations of our canker-worms, it should be stated that, where these insects prevail, they are most abundant on apple and elm trees; but that cherry, plum, and lime trees, and some other cultivated and native trees, as well as many shrubs, often suffer severely from their voracity. The leaves first attacked will be found pierced with small holes; these become larger and more irregular when the canker worms increase in size; and, at last, the latter eat nearly all the pulpy parts of the leaves, leaving little more than the midrib and veins. A very great difference of color is observable among canker-worms of different ages, and even among those of the same age and size. It is possible that some of these variations may arise from a difference of species; but it is also true that the same species varies much in color. When very young, they have two minute warts on the top of the last ring; and they are then generally of a blackish or dusky brown color, with a yellowish stripe on each side of the body; there are two whitish bands across the head; and the belly is also whitish. When fully grown, these individuals become ash-colored on the back, and black on the sides, below which the pale yellowish line remains. Some are found of a dull, greenish yellow, and others of a clay color, with slender interrupted blackish lines on the sides, and small spots of the same color on the back. Some are green, with two white stripes on the back. The head and the feet partake of the general color of the body; the belly is paler. When not eating, they remain stretched out at full length, and resting on their fore and hind legs, beneath the leaves. When fully grown and well fed, they measure nearly or quite one inch in length. They leave off eating when about four weeks old,* and begin to quit the trees; some creep down by the trunk, but great numbers let themselves down by their threads from the branches, their instincts prompting them to get to the ground by the most direct and easiest course. When thus descending, and suspended in great numbers under the limbs of trees overhanging the road, they are often swept off by passing carriages, and are thus conveyed to other places. After reaching the ground, they immediately burrow in the earth, to the depth of from two to six inches, unless prevented by weakness or the nature of the soil. In the latter case, they die, or undergo their transformations on the surface. In the former, they make little cavities or cells in the ground, by turning round repeatedly and fastening the loose grains of earth about them with a few silken threads. Within twentyfour hours afterwards, they are changed to chrysalids in their cells. The chrysalis is of a light brown color, and varies in size according to the sex of the insect contained in it; that of the female being the largest, and being destitute of a covering for wings, which is found in the chrysalis of the males. The occurrence of mild weather after a severe frost stimulates some of these insects to burst their chrysalis skins and come forth in the perfected state; and this last transformation, as before stated, may take place in the autumn, or in the course of the winter, as well as in the spring; it is also retarded, in some individuals, for a year or more beyond the usual time. They come out of the ground mostly in the night, when they may be seen struggling through the grass as far as the limbs extend from the body of the trees under which they had been buried. As the females are destitute of wings, they are not able to wander far from the trees upon which they had lived in the caterpillar state. Canker-worms are therefore naturally confined to a very limited space, from which they spread year after year. Accident, however, will often carry them far from their native haunts, and in this way probably, they have extended to places remote from each other. Where they have become established, and have been neglected, their ravages are often very great. In the early, part of the season, the canker-worms do not attract much attention; but it is in June, when they become extremely voracious, that the mischief they have done is rendered apparent, when we have before us the melancholy sight of the foliage of our fruit trees and of our noble elms reduced to withered and lifeless shreds, and whole orchards looking as if they had been suddenly scorched with fire.

In order to protect our trees from the ravages of canker-worms, where these looping spoilers abound, it should be our aim, if possible, to prevent the wingless females from ascending the trees to deposit their eggs. This can be done by the application of tar around the body of the tree, either directly on the bark, as has been the most common practice, or, what is better, over a broad belt of clay mortar, or on strips of old canvass or of strong paper, from six to twelve inches wide, fastened around the trunk with strings. The tar must be applied as early as the first of November, and perhaps in October, and it should be renewed daily as long as the insects continue rising; after which the bands may be removed, and the tar should be entirely scraped from the bark. When all this has been properly and seasonably done, it has proved effectual. The time, labor, and expense attending the use of tar, and the injury, that it does to the trees when allowed to run and remain on the bark, have caused many persons to neglect this method, and some to try various modifications of it, and other expedients. Among the modifications may be mentioned a horizontal and close-fitting collar of boards, fastened around the trunk, and smeared beneath with tar; or four boards, nailed together like a box, without top or bottom, around the base of the tree, to receive the tar on the outside. These can be used to protect a few choice trees in a garden, or around a house or a public square, but will be found too expensive to be applied to any great extent. Collars of tin plate, fastened around the trees, and sloping downwards like an inverted tunnel, have been proposed, upon the supposition that the moths would not be able to creep in an inverted position, beneath the smooth and sloping surface. This method will also prove too expensive for general adoption, even should it be found to answer the purpose. A belt of cotton-wool, which it has been thought would entangle the feet of the insects, and thus keep them from ascending the trees, has not proved an effectual bar to them. Little square or circular troughs of tin or of lead, filled with cheap fish oil, and placed around the trees, three feet or more above the surface of the ground, with a stuffing of cloth, hay, or sea-weed between them and the trunk, have long been used by various persons in Massachusetts with good success; and the only objections to them are the cost of the troughs, the difficulty of fixing and keeping them in their places, and the injury suffered by the trees when the oil is washed or blown out and falls upon the bark. Mr Jonathan Dennis, Jr., of Portsmouth, Rhode Island, has obtained a patent for a circular leaden trough to contain oil, offering some advantages over those that have heretofore been used, although it does not entirely prevent the escape of the oil, and the nails, with which it is secured, are found to be injurious to the trees. These troughs ought not to be nailed to the trees, but should be supported by a few wooden wedges driven between them and the trunks. A stuffing of cloth, cotton or tow, should never be used; sea-weed and fine hay, which will not absorb the oil, are much better. Before the troughs are fastened and filled, the body of the tree should be well coated with clay paint or white wash, to absorb the oil that may fall upon it. Care should be taken to renew the oil as often as it escapes or becomes filled with the insects. These troughs will be found more economical and less troublesome than the application of tar, and may safely be recommended and employed, if proper attention is given to the precautions above named. Some persons fasten similar troughs, to contain oil, around the outer sides of an open box enclosing the base of the tree, and a projecting ledge is nailed on the edge of the box to shed the rain; by this contrivance, all danger of hurting the tree with the oil is entirely avoided. In the 'Manchester Guardian,' an English newspaper, of the 4th of November, 1840, is the following article on the use of melted Indian rubber to prevent insects from climbing up trees:—

"At a late meeting of the Entomological Society, [of London?] Mr J. H. Fennell communicated the following successful mode of preventing insects ascending the trunks of fruit trees. Let a piece of Indian rubber be burnt over a gallipot, into which it will gradually drop in the condition of a viscid juice, which state, it appears, it will always retain; for Mr Fennell has, at the present time, some which has been melted for upwards of a year, and has been exposed to all weathers without undergoing the slightest change. Having melted the Indian rubber, let a piece of cord or worsted be smeared with it, and then tied several times round the trunk. The melted substance is so very sticky, that the insects will be prevented, and generally captured, in their attempts to pass over it. About three pennyworth of Indian rubber is sufficient for the protection of twenty ordinary sized fruit trees."

Applied in this way, it would not be sufficient to keep the canker-worm moths from getting up the trees; for the first comers would soon bridge over the cord with their bodies, and thus afford a passage to their followers. To insure success, it should be melted in larger quantities, and daubed with a brush upon strips of cloth or paper, fastened round the trunks of the trees. Worn out Indian rubber shoes, which are worth little or nothing for any other purpose, can be put to this use. This plan has been tried by a few persons in the vicinity of Boston, some of whom speak favorably of it.

*In the year 1841, the red currant flowered, and the canker-worms appeared, on the 15th of May. The insects were very abundant on the 15th of June, and on the 17th scarcely one was to be seen.

It has been suggested that the melted rubber might be applied immediately to the bark without injuring the trees. A little conical mound of sand surrounding the base of the tree is found to be impassable to the moths, so long as the sand remains dry; but they easily pass over it when the sand is wet, and they come out of the ground in wet, as often as in dry weather.

Some attempts have been made to destroy the canker-worms after they were hatched from the eggs, and were dispersed over the leaves of the trees. It is said that some persons have saved their trees from these insects by freely dusting air-slacked lime over them while the leaves were wet with dew. Showering the trees with mixtures that are found useful to destroy other insects, has been tried by a few, and, although attended with a good deal of trouble and expense, it may be worth our while to apply such remedies upon small and choice trees. Mr David Haggerston, of Watertown, Ms., has used, for this purpose, a mixture of water and oil-soap (an article to be procured from the manufactories where whale oil is purified,) in the proportion of one pound of the soap to seven gallons of water; and he states that this liquor, when thrown on the trees with a garden engine, will destroy the canker-worm and many other insects, without injuring the foliage or the fruit. Jarring or shaking the limbs of the trees will disturb the canker-worms, and cause many of them to spin down, when their threads may be broken off with a pole; and if the troughs around the trees are at the same time replenished with oil, or the tar is again applied, the insects will be caught in their attempts to creep up the trunks. In the same way, also, those that are coming down the trunks to go into the ground will be caught and killed. If greater pains were to be taken to destroy the insects in the caterpillar state, their numbers would soon greatly diminish.

Even after they have left the trees, have gone into the ground, and have changed their forms, they are not wholly beyond the reach of means for destroying them. One person told me that his swine, which he was in the habit of turning into his orchard in the autumn, rooted up and killed great numbers of the chrysalids of the canker-worms. Some persons have recommended digging or plowing under the trees in autumn, with the hope of crushing some of the chrysalids by so doing, and of exposing others to perish with the cold of the following winter. If hogs are then allowed to go among the trees, and a few grains of corn are scattered on the loosened soil, these animals will eat many of the chrysalids as well as the corn, and will crush others with their feet. Mr S. P. Fowler* thinks it better to dig around the trees in July, while the shells of the insects are soft and tender. He and Mr John Kenrick, of Newton, Mass., advise us to remove the soil to the distance of four or five feet from the trunk of the trees, and to the depth of six inches, to cart it away and replace it with an equal quantity of compost or rich earth. In this way, many of the insects will be removed also; but, unless the earth thus carried away, is thrown into some pond-hole, and left covered with water, many of the insects contained in it will undergo their transformations and come out alive the next year.

*See Yankee Farmer, of July 18, 1840, and New England Farmer, of June 2, 1841, for some valuable remarks by Mr Fowler.

Canker-worms are subject to the attacks of many enemies. Great numbers of them are devoured by several kinds of birds, which live almost entirely upon them during their season. They are also eaten by a very large and splendid ground-beetle (*Calosoma scrutator,*) that appears about the time when these insects begin to leave the trees. These beetles do not fly, but they run about in the grass after the canker-worms, and even mount upon the trunks of the trees to seize them as they come down. The latter are also stung by a four-winged ichneumon-fly, which deposits an egg in every canker-worm thus wounded. From the egg is hatched a little maggot, that preys on the fatty substance of the canker-worm, and weakens it so much that it is unable to go through its future transformations. I have seen one of these flies sting several canker-worms in succession, and swarms of them may be observed around the trees as long as the canker-worms remain. Their services, therefore, are doubtless very considerable. Among a large number of canker-worms, taken promiscuously from various trees, I found that nearly one third of the whole were unable to finish their transformations, because they had been attacked by internal enemies of another kind. These were little maggots, that lived singly within the bodies of the canker-worms, till the latter died from weakness; after which the maggots underwent a change, and finally came out of the bodies of their victims in the form of small two-winged cuckoo-flies, belonging to the genus *Tachina.* Mr E. C. Herrick, of New Haven, Connecticut, has made the interesting discovery that the eggs of the canker-worm moth are pierced by a tiny four-winged fly, a species of *Platygaster,* which goes from egg to egg, and drops in each of them one of her own eggs. Sometimes every canker-worm egg in a cluster, will be found to have been thus punctured and seeded for a future harvest of the *Platygaster.* The young of this *Platygaster* is an exceedingly minute maggot, hatched within the canker-worm egg, the shell of which, though only one thirtieth of an inch long, serves for its habitation, and the contents for its food, till it is fully grown; after which it becomes a chrysalis within the same shell, and in due time comes out a *Platygaster* fly, like its parent. This last transformation Mr Herrick found to take place towards the end of June, from eggs laid in November of the year before; and he thinks that the flies continue alive through the summer, till the appearance of the canker-worm moths in the autumn affords them the opportunity of laying their eggs for another brood. As these little parasites prevent the hatching of the eggs wherein they are bred, and as they seem to be very abundant, they must be of great use in preventing the increase of the canker-worm. Without doubt such wisely appointed means as these were once enough to keep within due bounds these noxious insects; but since our forests, their natural food, and our birds, their greatest enemies, have disappeared before the woodman's axe and the sportsman's gun, we are left to our own ingenuity, perseverance, and united efforts, to contrive and carry into effect other means for checking their ravages.

Apple, elm, and lime trees are sometimes injured a good deal by another kind of span-worm, larger than the canker-worm. As they resemble the latter in their habits, and often live on the same trees, they can be kept in check by such means as are found useful when employed against canker-worms. —*Harris's Report on the Insects of Massachusetts.*

For the N. E. Farmer.

WARTS ON PLUM TREES.

Mr Editor—I read a piece in your paper, a short time since, respecting the plum blight, which if not prevented, is soon likely to destroy this valuable fruit. I have a large and beautiful tree, which I have kept in a healthy condition, while those of my neighbors are almost entirely destroyed. I object to the practice of cutting off the limbs, as the extract in your paper directs, unless they are very small—as this would soon hurt the looks of the tree. Take a sharp knife, when the excrescences first appear, and shave them close to the wood, being particular to scrape out every particle of the gummy substance. Cover the wound with grafting composition, and it will soon heal over. I know of no other remedy so effectual as this, and doubt not if your subscribers will faithfully try this method, that they will preserve their trees from this terrible disease.

Now is about the time they [the warts?] make their appearance. They are nearly the same color of the bark, and if not closely examined, are not easily detected.

Yours, respectfully,

LAWRENCE SMITH.

Middlefield, May 18, 1842.

RUTA BAGA.

A respected correspondent in Peru, makes the following remarks on the culture and preservation of ruta baga.—*Alb. Cult.*

"Some of my neighbors object to raising this root, on the ground of the expense and trouble. I presume they do not consider that in the first place the seed, compared with that of potatoes, is a mere trifle; that the sowing of an acre is but a morning walk, provided they are supplied with a drill barrow, which every one should have; and that when sown in drills, a great share of the work can be performed with a small plow. The harvesting can be accomplished in one third of the time required for potatoes; if you are not provided with a regular turnip hook, a common hoe will answer if made sharp. The easiest way of keeping them through the winter, is to level a piece in a dry place, build them up in the form of a house roof, covering them with a light coat of straw, and six or eight inches of earth, not more. I have kept them in this way a number of winters, and always found them very nice in the spring. Be sure not to put on too much earth, since if kept too warm they will decay. I know this from experience. W. K."

A hole made by a crowbar or stake, through the top of turnip heaps, and kept open, will allow the heated air to escape, and prevent the decay spoken of by W. K.

Old Recipes.—"A stick o' brimstone wore in the pocket is good for them as has cramps.

"A haddock's back bone carried in the pocket, is beautiful in the rheumatiz.

"If you've got the hiccups, pinch one of your wrists, and hold your breath while you count sixty —or get somebody to make you jump by sudden fright.

"For the ear-ache, put an ing'un (onion) in your ear, after it is well roasted."

Grated horse-radish is said to be excellent to eat in case of hoarseness from a cold.

From the Maine Farmer.

GRIEF IN THE POTATO BIN.

Mr Editor—Notwithstanding all that has been said and sung about potatoes, for a hundred years past, it don't appear that we know all about them yet that we ought to know. In your last monthly there was a letter from Samuel Stetson, of Stetson, on that subject, which I don't exactly believe in; but what I was going to tell you about more particularly is, that it has kicked up a terrible bobbery in my potato bins. My boy Tom is rather a naughty roguish fellow, and so he took it into his head to have a little fun with the potatoes that had lived together all winter as peaceably and quietly as lambs. What does the rogue do, but just while he was picking up a basket full to boil for the hogs, tells them of this new project of friend Stetson, to separate them for the whole summer; and when I went down to get a mug of cider, why you may depend on't, they were all in a great hubbub, and began to assail me from all quarters, in groans and lamentations and remonstrances.

The long red Laplanders were the most uproarious. What does this mean, uncle Bill? said they. Are we to be deprived of our dearest privileges, after having come four thousand miles across the briny ocean to gratify the appetites of your ever devouring and never satisfied Yankees? Hitherto we have lived in peace side by side of our dear connexions, and have raised up large families to the satisfaction of all concerned; and now to be compelled to break those dear connexions, to be banished to different departments of the land, to be fenced from each other's view, no more to interchange the sweet fragrance of each other's blossoms, no more to glory in each other's verdure, but to live sad, solitary and alone—this is too much.

The Chenango Philadelphians cried out—Dear uncle Bill, are we who have so long lived through so many summers in the full bloom of brotherly love, reciprocating sweets from all around us, now to be pent up in a corner, deprived of all social communion and wrested from one of our inalienable rights? Do, uncle Bill, put a stop to this naughty project, if it be possible.

The Pink Eyes appeared as if they had almost cried their eyes out, and prayed most earnestly that they might be saved from the threatened calamity.

The Franconia Blue Noses were snivelliug in sad lamentation, and declared that they wished they had never come from under the guardianship of Gov. Hill and the arid hills of New Hampshire, to gratify those who were disposed to use them so unrighteously.

The Lady Fingers, pretty creatures, said nothing but looked sad. The Kidneys said the man who introduced this project, must be suffering under the bilious disease. The Hog Horns thought he ought to be rooted out of society, and the Rohans observed that as they were rather strangers among them, they would simply say, that they would unite in any measure the majority thought best.

Well, sir, I could n't appease them any other way than by promising to write immediately to Dr. Holmes and get him to do his best to prevent this new-fangled notion of Mr Stetson's from getting into fashion.

Now, sir, I think as how this Mr Stetson is altogether mistaken, for I have talked with one doctor about the matter, and he is a real learned man and knows all about botany and all the ologies, &c. He says Mr S.'s notions are without any foundation. He says that one field of potatoes cannot possibly have any influence on another field, however near it may be, but if we raise new roots from the potato seeds in their balls, we shall see the effect of various kinds being cultivated in the same fields. This appears to be about right, so far as I have had experience, and if you have no objection, I wish you would put this into your Farmer.

BILL BARLEYCORN.

From the Poughkeepsie Journal.

THE NECESSITY OF PROTECTION TO THE FARMING INTEREST.

To the Farmers—particularly to the Farmers of Dutchess County.

So far as I can perceive, as a resident of the country, there appears a general indifference among the farming interest concerning the necessity of a protective Tariff, to sustain the Manufacturing labor of the country, denomiated a Protection to Manufacturers, as if they were a class to be mainly benefited by such an act, and in which you were not interested. To illustrate the subject by a plain statement of practical facts, that you and all others may see, if they will take the trouble to read, I propose giving a detailed statement of the consumption of the products of Agriculture by a Woollen Factory in this country, and of the great disparity in amount of investment, between agricultural and manufacturing capital, that you may form a correct judgment as to the necessity of a Protective Tariff on that branch of manufacture, and whether it is the manufacturer or the farmer that has most of a pecuniary interest at stake.

The duty on Wool for the past fifteen years has averaged about *fortyeight per cent.* which has for some years amounted to a prohibition (or very nearly so,) of all foreign Wool of a quality that came in competition with American Wool, the price of Wool in Europe being from twentyfive to fifty per cent. below ours, but not sufficiently low to import and pay duties, freight and other charges and leave a saving on cost—consequently little or none has been imported.

The duty on Woollen Goods, as laid by the Tariff during the same time, has averaged about *fortyfive* per cent., but not over two-thirds of that duty, during the greater portion of the time, has ever been collected—owing to fraudulent entries at the Custom Houses. The importation of woollens being mainly in the hands of foreigners, the result has been that the woollen manufacturers have in many instances become bankrupt; those who have sustained themselves have realized so small a profit on their capital that it would not pay the wear and tear and depreciation of their establishments. The duty on woollen goods is now reduced to *twentynine* per cent, and on the 30th of June next, a further reduction takes place, reducing the duty to *twenty* per cent. How is it possible, if, under a duty of fortyfive per cent., the manufacturers have been only so partially protected, that they have not made a sufficient profit to make good wear and tear and depreciation of their establishment, that they can sustain themselves under a duty of twenty per cent? I prophesy, and time will prove whether I am a false prophet, that unless the duty is greatly increased above twenty per cent. there will not be one woollen manufactory in twenty in operation on the first of January, 1843. The surplus productions of European workshops will be poured in upon us under the twenty per cent. duty —foreigners have wool and many other materials twenty per cent. cheaper than we have, labor at least thirty per cent. cheaper, interest of money twentyfive per cent. cheaper than here, their home market secured to them by prohibitory duties.

That you, the wool and grain growers of the North and West, may have data on which to make up your minds, who is the party (the farmer or the manufacturer) most interested in a protective Tariff, I will give a detailed statement of the operations of one of your most important customers, at your own doors, denominated a "*woollen manufactory*," in the town of Fishkill, Dutchess county.

The Glenham Company have a capital of *one hundred and forty thousand dollars*, consisting mainly of a few acres of land, their factory buildings, machinery, water power, and dwelling houses for the operatives, their sole business is the manufacturing of wool into broadcloths, cassimeres, &c., they give constant daily employment to one hundred and seventy persons, men, women and children. The past year, 1841, they used in their manfactory

173,000 lbs. of American fleece wool, which cost	$73,800
8,500 gallons of olive oil, (on which the Government received a revenue of $700, being a duty of 20 cents a gallon,) cost	4,000
770 gallons sperm oil,	844
11,174 lbs. of soap,	1,196
75,600 teazles,	1,300
22,500 pelts,	584
143 cords of wood,	586
270 tons of anthracite coal,	1,640
50 chaldrons Nova Scotia coal, (duty $108)	450
6,089 lbs. indigo, (government revenue by duties $900,)	10,000
Dye stuffs, viz: log-wood, alum, copperas, madder, sumac, &c. &c. (mostly foreign)	2,500
Sundries,	4,500
	$101,600
Wages paid to the 170 operatives for the year,	40,000
Total,	$141,000

Let us see the amount of agricultural capital now in requisition, which that manufacturing establishment requires to keep it in operation, and that furnishes a market for such agricultural investment:

I. To produce 173,000 lbs. of wool will require the fleeces of 66,000 sheep, at their present lowest value in Dutchess county, I put down at $2 per head, is $132,000

II. To support that immense flock of sheep with winter fodder and summer pasture, I am informed by a sheep raiser, that not more than three sheep can be kept on an acre, consequently 22,000 acres of land will be the required quantity for their maintenance, at the lowest price that lands can be had in the county, which will support three sheep to the acre, I estimate at $50 the acre, is 1,100,000

III. Not less than 500 persons are supported out of the labor of the 170 operatives, and consume weekly of the product of agriculture, of beef, pork, flour, butter, milk, eggs, cheese, &c. &c.

at the lowest estimation, of the value of $200 per week, for the year of 52 weeks, is $10,400 per annum. Intelligent farmers tell me that it must be an industrious man, on a farm of 200 acres of fair average land, who can sell to the amount of $800 per annum over and above the supply of his own family and work hands. To furnish, therefore, the supply for the manufacturers would require thirteen farms of 200 acres each, is 3,600 acres, which I estimate at $70 per acre, is 182,000

IV. A farther investment of agricultural capital is required to furnish the teazles, fire-wood, coal, provender for team horses, &c. &c., estimated at 8,000

$1,422,000

Thus, one million four hundred and twentytwo thousand dollars is the agricultural capital now in requisition to supply the manufacturing investment of only one hundred and forty thousand dollars.

I challenge refutation on the foregoing statement of facts. Agriculturists, examine it closely and carefully, and then say who is most to be benefitted by a protective tariff, which will enable that establishment to continue the operation, you or the manufacturer? Every woollen manufactory in the country in proportion to its extent, is alike the market for the agriculturist for his wood and his provisions. If that establishment is driven to a suspension of its operations for the want of adequate protection, it is quite probable that others will cease to operate from the same cause. Where then, will you find a market for the produce of your farms? Should the present Tariff law go into effect, which imposes a duty of twenty per cent. after the 30th June next, it will be utterly and entirely out of the question for the manufacturers of wool to sustain themselves for a single month against foreign competition, under so significant a protection. England will take your wool in pay for her broadcloths at 25 cents the pound, for the same quality you have been selling the past year at 45 cents, (wool being a raw material, she only levies one cent the pound duty, to aid her manufacturers.)

But your other productions, such as your beef, pork, flour, lumber, &c., are loaded with so heavy a duty, that it amounts nearly to a prohibition.—Flour now pays in England a duty of three dollars and a quarter the barrel. Very little if any of the products of your farms enter into the composition of a yard of foreign broadcloth; whereas, the American is almost wholly of American product and labor. The suspension of the woollen manufactures will throw out of employ a population, four-fifths of whom are women and children, who are incapable of agricultural labor. They who are now all consumers of agricultural products must, from necessity, become in part producers, and add to the already overstocked market of the products of agriculture. What insane, what fatal policy, to consign our manufactories to destruction, and our women and children to beggary and want, (which will be the inevitable result) if the present tariff law goes into effect. If they are sacrificed, you farmers, when too late, will find that your interest must follow suit, for want of the home market the manufacturer now furnishes. Europe will not take your bread stuffs, they raise enough for themselves.

Where, I will ask, are you to find a market for your productions now consumed by the manufacturing population, which have been thus far sustained by laws of protection, now about being abandoned, unless the farming interest will arouse to rescue them, and save their home market? If you believe in the truth of these remarks, let our representative be instructed to stand by our interests, against the Free trade sophistry of the Southern Nullifiers. They have taken most especial care that their productions shall not be interfered with by the introduction of similar articles of foreign growth. Their cotton, rice, and tobacco, are protected by prohibitory duties: not a pound of foreign cotton, or rice, enters into American consumption. If I have understood the votes our representative in Congress has recently given on the incidental reference of the Tariff question, they have been against Protection, and hostile to your interests, and of the prosperity of the county and State he represents. If such are his views, I hope and trust that his constituents will see the necessity of instructing him otherwise, that Protection be sustained.

The agricultural and manufacturing industry of the North I consider in a most critical and dangerous position; our Currency prostrated, and but a shadow of a chance of being speedily improved; the nation as well as individuals heavily in debt to foreigners, and the main hope for better times must rest on a Protective Tariff. *Protection* to the manufacturing industry under which the nation has so signally prospered, began on the immediate adoption of the Constitution; and as a proof that *protection* was intended, the heading or the caption to the *first* law passed in 1791 reads as follows: "*Whereas, it is necessary for the support of Government, for the discharge of the debts of the United States, and the encouragement and protection of manufactures, that duties be laid on goods, wares and merchandise imported;*"* and laws designed for protection have continued to be enacted ever since, recognizing protection. What consummate folly, therefore, not to say wickedness, of some of the members in Congress, to waste the time of the House at this moment debating the constitutionality of laws for protection! Those interests that have been the most thoroughly protected by legislative enactments, have been the most successful, viz: navigation, ship building, manufactures of leather, carriages, cabinet ware, hats, coarse cotton goods, and a thousand other articles which the domestic producer has now furnished, excluding almost wholly the foreign article, and furnishing a large amount for export.

Meetings ought to be called in every town before it is too late, to memorialize Congress so to adjust the tariff that every interest is thoroughly protected. If the manufacturers are prostrated, the farming interest must also fall, so far, at least, as any profit on their industry is concerned.

The manufacture of iron, cotton, and in fact every branch of industry, is but the handmaid of agriculture. When they flourish, the agriculturist is most generally prosperous. S.

*In 1796 General Washington in his speech made the following remarks—"Congress have repeatedly directed their attention to the *encouragement of manufactures*; the object is of too much importance not to insure a continuance of these efforts in every way which shall appear eligible."—Mr. Jefferson in his message of 1802, states "that to cultivate peace, maintain commerce and navigation, to foster our fisheries and *protect manufactures*, adapted to our circumstances, &c, are the landmarks by which to guide ourselves in all our relations." Other Presidents have held the same language.

BLACK GUM IN CHERRY AND PLUM TREES.

In almost every direction that we travel, we notice the almost complete destruction of the cherry and plum trees. It is done by a small insect which deposites an egg in the bark. Soon after the hatching of the worm, a fungus kind of wood shows itself, which turns black, and finally the tree dies.

The only remedy that we know is, pruning off the diseased branches and burning them up. This, to be effectual, should be done by all who have trees so affected, for unless all do it, they allow a new swarm of the enemy to come forth to continue their depredations upon the same or other trees. We should judge from the many unsightly trees in the country, that little or nothing had been done, and, as a natural consequence, most of the trees are dead, or very nearly so. There is another remedy which suggested itself to our mind on reading Boucherie's method of charging trees with different fluids. Might not some fluid be put into the circulation which would not kill the tree, and yet kill the insects? We have heard that if sulphur be put into a hole bored in an apple, quince or other tree infested with the borers, it would kill them. We have never *seen* this done, and are at some loss to conceive how it can act, unless particles of the dry sulphur are taken up by the sap and floated through the vessels until they come in contact with the insect or worm. It is possible, however, that some new substance may be formed by the combination of the sulphur with some element of the sap and thus be the means of producing the effects alleged.

Boucherie found that by cutting a notch in the trunk of a tree so as to hold a portion of any fluid, while the tree was in leaf, it would rise and be circulated throughout the whole trunk and limbs.

Experiments ought to be instituted in order to ascertain what fluids may be thus injected which shall be death to insects but health to the tree.—*Maine Farmer.*

WILL CHARCOAL ON LAND PREVENT RUST IN WHEAT?

A writer, Mr J. H. Hepburn, in the Transactions of the New York State Agricultural Society, says that he has "just been made acquainted with another result of the application of charcoal to arable land—that is, wherever charcoal has been applied, rust never affects the growing crop of wheat. That wherever a field generally had been 'struck with rust,' as it is called, these places where he had applied charcoal, *invariably escaped.*"

Has any one observed anything of the kind in Maine? The only place where its effects would be likely to be exhibited, are where coalpits had been made and the old bottoms sowed over with the rest of the field. It has not been long since the direct application of charcoal has been recommended as a manure, and very few people have tried its efficacy at all, and that on but a very small scale. There may be many instances, however, where coal hearths are left and where the good or bad results may be noted. If applied direct, we presume it ought to be made fine.—*Ibid.*

As the sun breaking in winter, so is joy in the season of affliction. As a shower in the midst of summer, so are the salutary drops of sorrow mingled in our cup of pleasure.

NEW ENGLAND FARMER,
AND HORTICULTURAL REGISTER.

BOSTON, WEDNESDAY, JUNE 1, 1842.

TILLAGE—CARE OF THE CROPS.

Crops of nearly every kind, derive benefit from frequent stirrings of the earth around their roots. If we mistake not, many farmers are accustomed, when the cornfield or potato field is not weedy, to infer that hoeing is not called for. It is true that when weeds are abundant, the crop does require cleaning; but it does not follow that when there are no weeds the crop is doing as well as good husbandry can make it do. For the object of plowing, *cultivatoring (?)* harrowing, hoeing, &c., is not *solely to destroy weeds.* Every stirring of the soil brings new particles of soil or of manure and soil together, and promotes new chemical and new mechanical changes in it. This stirring makes the soil give out more freely food for the plants, and makes of the soil an easier and more agreeable bed for the roots to expand in.

What is the best process of tillage for Indian corn, for instance. If much manure has been put in the hill, it is necessary to put so much earth upon it, as to keep the manure from drying up. In such cases the common mode of plowing between the rows and earthing up, is necessary. But where the manure has all, or nearly all been spread, the crop does well without any hill.

The ground should be often stirred—but how? Shall we run the plow or cultivator or harrow deep, and loosen the earth as far down as we can? or shall we merely scratch the surface? In years past we have maintained that it is important to spare the roots of the growing corn; and have preferred using a light horse-harrow to any other implement; and our course has been successful. But it does not follow from this that we may not do better.

When reading last year the Essays upon Husbandry, by Rev. Jared Eliot, published in 1747, and from which we extracted freely into our columns, we were much impressed by a statement there made in regard to the effects of peculiar tillage upon the carrot crop. This was raised without manure. The rows were put wide apart, and soon after the plants came up, the earth was plowed away from them, the plow running *very near* the plants. After a few days, these furrows were turned back towards the plants. A few days subsequently to this, furrows were again turned *from the plants*, but the plow did not run quite so near them as at the first time. Then after a few days the furrows were turned back—and this process of turning off and on, was repeated five or six times. But at each time of turning off, the plow was kept a little farther from the plants than before.

The consequence of all this was that he obtained carrots 8, 9 and 10 inches in circumference, where in the common way of cultivation he could not have had them larger "than a common dipped tallow candle." And though his rows were six feet apart or more, he obtained 230 bushels per acre.

The minute fibrous roots of the carrot extend laterally farther than we are apt to observe. And it is only a fair supposition that the better the state of the ground, or that the more recently the ground has been stirred before the roots extend into it, the better the crop will grow. The course pursued by Mr Eliot was admirably fitted to furnish to the roots a fresh supply of soil from week to week, and this soil in a light and pulverized state.

The question which his practice and his success in this case have suggested, is this: whether we might not benefit our corn, our potatoes, and all other crops by commencing early with plowing the earth away from one side of the row, letting the plow run *very near* the plants—say within two or three inches; then we might turn this earth back immediately, or let it remain two or three days, and then turn it back. After this was done we might plow away from the other side; at the proper time turn this back. When it became necessary to plow off again, keep the plow 4 or 5 inches from the plant. And thus repeat the process as long as was necessary—taking care all the time to keep the plow far enough from the plants not to harm many of the roots.

At the last time of going over the ground, it may be well to use the light harrow and level the whole surface.

This is merely theory—*book farming*—we give it only as such. If any of our readers shall find in it any inducement to make a few limited experiments, the theory may possibly prove to be of some service.

A fact that has some bearing upon this point, may be brought from the practice of some of the most successful Scotch cultivators of the potato, who after the plants come up, take off the mould-board from the plow, and then running the coulter as near to the plants as they can, let the share pass directly under the seed and plants. The effect is to stir the ground that the first roots will enter just as they begin to want food.

SOD FENCE.

We have somewhere read that the peasants, in portions of France, inclose their small farms with fences of sods or turf; and that on these fences they grow most of their fuel. Where we met with the account we do not now recollect; but the perusal left in our memory a distinct impression of all that was needful for imitating the process.

Last autumn, *the public good*, required the county commissioners to open a way through our private domains and impose upon us the burthen of constructing 145 rods of fence. We had neither wood nor stone for the purpose. Along portions of the line we had a tolerably good upland sward—some of the way was bog meadow—and some, a brittle upland soil. In October last, we commenced laying up sods—the fence four feet wide at the surface of the ground, and two feet wide at 3 1-2 feet from the surface. At the sides we trenched from one and a half to two feet in both width and depth. So that from the bottom of the ditch to the top of the fence was five feet or more. We completed about thirty rods last autumn and sowed apple pomace upon it. The boys—and some of them full grown—have found it agreeable to make this fence a foot path through the winter and spring, and have so trodden down the covering of the pomace, that we shall have no trees this season. But as soon as the road is made, and it is known in the vicinity that the top of the fence is planted, we shall have no evil of the kind to complain of. The fence itself—though the winter was one to try it—has stood well. We have laid the foundation and brought towards completion nearly one hundred rods more. Much of the way we are obliged to haul the sods a few rods, and to mix in hard brake-hummocks, or brake heads, brought from the pasture lands that we are breaking up. With one or two layers of these, we can make a fence of earth, even where there is little if any sward. What the expense of putting up this kind of fence will be, we have no means of determining accurately. But it will not exceed fifty cents per rod. It requires the soil of a strip of land a rod wide or more, to make such a fence—but this is not all lost land. In three or four years it will all grass over, and the fence proper will bear a good crop of grass.

One of our neighbors having watched our operations, and seen how our fence stood the winter, has built about 80 rods of such fence this spring. He had nearly all the way a tolerably good sward, and an easy subsoil to shovel. His fence was built by the labor of two men in 11 1-2 days after the ground was plowed. The plowing might cost from a dollar to a dollar and a half.

Where rocks are abundant, stone wall is the best fence on a farm. Where rails and posts are at hand, they do well; but where neither can be had conveniently, and where the soil itself admits of being formed into a fence, there the sod fence may be desirable.

Should any one desire any farther information upon this subject, we shall be happy to communicate all that we possess.

Lime.—A striking instance of the effect of lime in converting animal matter into manure is contained in the following extract from Ruffin's Essay on Calcareous Manures:

"The carcase of a cow, killed by accident late in the spring was laid on the ground, and covered by about 25 bushels of broken shells mixed with 45 bushels of earth, chiefly silicious. After the rains had settled the heap, it was only six inches thick over the highest part of the carcass. The process of putrefaction was so slow, that several weeks passed before it was over; nor was it ever so violent as to throw off any effluvia that the calcareous earth did not *intercept in its escape*, so that no offensive smell was ever perceived. In October the whole heap was carried out and applied to one sixth of an acre of wheat; and the effect produced far exceeded that of the calcareous manure alone, which was applied at the same time on the surrounding land."

The same valuable work contains a caution to the farmer, which may save him from dangerous error. "He is not to suppose that calcareous earth can enrich a soil by direct means. It destroys the worst foe of productiveness, *acidity*, and uses to the greatest advantage the fertilizing powers of other manures; but of itself it gives no fertility to soils, nor furnishes the least food to growing plants." In other words, it is the strong box for the treasure, but not the treasure itself.

Lime also possesses the property of making sandy soils closer and firmer, and clayey soils lighter. It is a mean between two extremes.—*David Thomas's Address.*

Thorough Culture.—I am satisfied that we have been too saving of our harrows. Thirty years ago, there was a method of plowing in this country called "*cut and cover.*" It was plowing, not to the *shares*, but to the *halves*—the furrow slice covering the space where a furrow ought to have been. I am apprehensive that our ideas of harrowing were learned in the same school. When grain is sowed, is it not the prevailing opinion that it is harrowed enough when the seed is covered? I had a piece of land harrowed sixteen times in one day, and was satisfied the labor was well applied.

For beets, or corn, or potatoes, what would be the effect of plowing in a heavy dressing of stable manure, harrowing twice, and repeating the operations of the plowing and harrowings four times more, adding each time to the depth of the soil? I have not yet performed the experiment, but the nearer I have approached it, the finer has been the crop. Thorough culture would seem to require that every little lump should be broken, so that the roots could wander freely in every direction, and that every drop of a summer shower should be caught and retained for future use. Hard land and thin soils have some resemblance to a dish bottom upwards.—*Ib.*

MASSACHUSETTS HORTICULTURAL SOCIETY.

An adjourned meeting will be held Saturday, June 4th, at 11 o'clock, A. M. EBEN. WIGHT
June 1. *Rec. Sec'y.*

THERMOMETRICAL.

Reported for the New England Farmer.

Range of the Thermometer at the Garden of the proprietors of the New England Farmer, Brighton, Mass. in a shaded Northerly exposure, for the week ending May 29.

May, 1842.	5, A.M.	12, M.	7, P.M.	Wind.
Monday, 23	49	55	52	S. E.
Tuesday, 24	37	64	54	E.
Wednesday, 25	51	64	60	W.
Thursday, 26	48	71	60	W.
Friday, 27	51	59	51	S. E.
Saturday, 28	50	68	66	W.
Sunday, 29	66	66	52	S. E.

BRIGHTON MARKET.—Monday, May 30, 1842.

Reported for the New England Farmer.

At Market 250 Beef Cattle, 12 pairs Working oxen, 15 Cows and Calves, 800 Sheep and 1060 Swine.

Prices.—*Beef Cattle.* Last week's prices were fully sustained. A few extra $6 00. First quality, $5 50 a 5 75. Second quality, $5 50. Third quality, $4 75 a 5 25.

Working Oxen.—Sales 80, 90, 95, and $98.

Cows and Calves. Sales 22, 25, 28, 30, and $35.

Sheep. Sales of lots from 1 50 to $3 00.

Swine.—Lots to peddle 3 a 3 1-4 for sows, and 4 a 4 1-4 for barrows. Large barrows 3 a 3 1-2. At retail, from 4 to 5 1-2.

WHOLESALE PRICES CURRENT.

Corrected with great care, weekly.

SEEDS Herds Grass, $2 75 to 3 00 per bushel. Red Top, 40 to 50 cents. Clover—Northern, 11 to 12c.—Southern, 9 a 10 c. Flax Seed, $2 00 per bushel. Lucerne, 25 c. per lb. Canary Seed, $4 50 a 5 00 per bushel.

GRAIN. Sales consist of yellow flat Corn, 58 a 58 1-2c, and white, 57; 3000 bushels Maryland yellow, equal to round, 60 a 61. Oats, Southern. 42c; sales by auction of 700 bushels Maryland do, 42 a 42 1-2c; Northern Rye, 72c, do. do.

Corn—Northern, bushel 62 to— —do. Round Yellow 60 a 61 —do. Southern Flat Yellow 57 a 58—White do. 56 a 57 —Barley — a — —Rye, Northern, 73 a 74 —do. Southern, — a — —Oats, Southern, 40 a 42—Northern do. 45 to 47—Beans, per bushel 75 a 1 50.—Shorts, per double bush. 40 a 45.

FLOUR. The transactions consist of Genesee, $6 44 a $6 50; Michigan, $6 37 a 6 44; Ohio, warranted sound, $6 25, and a parcel do. do. flat hoop, a shade under $6 37 do. do.; Georgetown, bakers' use, $6 62, cash; Howard st, $6 37 do do.

Baltimore, Howard Street, 4 mos. cr. $6 50 a — —do wharf, $6 00 a — do. free of garlic, $6 25 a — —Philadelphia do. 4 mos. $6 25 a — —Fredericksburg, lowl'd 4 mos. $6 12 a 6 25—Alexandria, wharf mountain,— — a — —Georgetown, $6 25 a 6 75—Richmond Canal, $6 25 a 6 50 —do. City, $7 00 a 7 25—Petersburgh, South side $7 00 a — —do. Country $6 00 a 6 25—Genesee, common, cash, $6 44 a 6 50— do fancy brands $6 50 a 6 62 — Ohio via Canal, $6 12 a 6 25—do do New Orleans, cash $6 00 a 6 12. Rye, $3 75 a 4 00—Indian Meal in bbls., $3 00 a 3 12.

PROVISIONS. The public sales comprise the following: 85 bbls western, extra clear Pork, $11 25 a 11 50 per bbl; 30 do do $10 62 a 11 do; 20 do Mess $7 75 do, and Prime $5 87 do 4 mos.; 500 kegs Western Lard 5 5-8 a 5 3-4c, 4 mos; 20 bbls Western Mess Beef $8 25 per bbl.; 20 do prime do $6 do. 188 bbls extra clear Pork and mess sold to-day at $10, and latter $6 80 per bbl.

Beef—Mess, 4 mo. new bbl. $9 00 a 9 50—Navy—$8 00 a — —No. 1, $7 25 a 7 50—do Prime $4 50 a 5 00—Pork—Extra clear, 4 mo. bbl. $12 a — —do Clear $10 a 11 —do Mess — a — —do Prime $6 25 a 6 00—do Mess from other States — a —.—do Prime do do, $5 25 a 5 50 — do Cargo do do — a — —Clear do do $10 00 a 11 00—Butter, shipping 6 a 11—do store, uninspected, 10 a 14—do dairy, 15 a 17.—Lard, No. 1, Boston ins. 5 1-2 a 6—do South and Western, 5 1-2 a 5 3-4—Hams, Boston, 7 a 7 1-2 —do Southern and Western, 3 a 6—Cheese, Ship'g and 4 meal, 6 a 8—do new milk, 9 a 10.

WOOL. Duty. The value whereof at the place of exportation shall not exceed 8 cts. per pound, free. All whereof the value exceeds 8 cts. per pound, 32 per ct. ad. val. and 4 cts. per pound.

Prime or Saxony Fleeces, washed, lb. 44 a 46 c.—American full blood, do 40 a 42—Do. 3-4 do 37 a 40—Do. 1-2 do 33 a 35—1-4 and common do 30 a 31 — Smyrna Sheep, washed, 20 a 25—Do. unwashed, 10 a 13—Bengasi do 8 a 10—Saxony, clean, — Buenos Ayres unpicked, 7 a 10—do. do. picked, 12 a 16—Superfine Northern pulled lamb 35 a 38—No. 1 do. do. do. 32 a 34—No. 2 do do do 21 a 24—No. 3 do do do 12 a 15.

HOPS. The English market was very firm at the last advices. The accounts from the plantations were quite favorable to the vine

1st sort, Mass. 1841 per lb 10 a 11.—2d do do do 8.

HAY, per ton, $19 to 22—Eastern Screwed $14 to 16

CHEESE—Shipping and 4 meal, 4 to 6c.—New 5 to 8.

EGGS, 12 a 16.

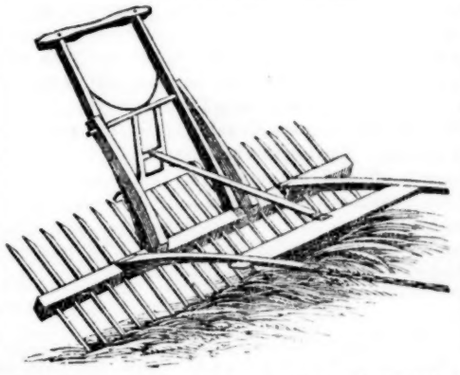
DAHLIA AND BEAN POLES.

500 dozen Dahlia and Bean Poles; also, 500 Spruce Poles 12 to 30 feet in length, for sale by MOSES FRENCH Jr., Maine wharf, near the bottom of Summer st.
June 1, 1842. 3w

WANTED

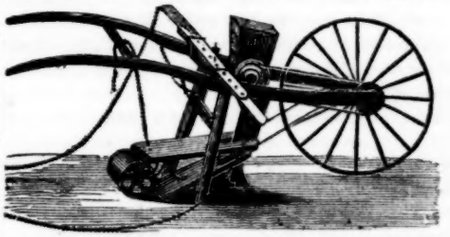
To hire from 15 to 50 acres of land with buildings, from 3 to 10 miles of Boston. Communication to the office of this paper will be attended to. 3t* May 25

REVOLVING HORSE RAKE.



This is one of the most useful and labor saving machines now in use. One man and a horse with a boy to lead, will rake on an average from 25 to 30 acres per day, with ease and do the work well. There is a great advantage in this rake over all others, as the person using it does not have to stop the horse to unload the rake. For sale by J. BRECK & CO., No. 52 North Market st. May 22.

WILLIS'S LATEST IMPROVED SEED SOWER.



In using this machine, the farmer may be certain that his seed is put into the ground, and at the same time in the best possible manner. There has been a great difficulty in machines for sowing garden seeds; they are very apt to clog up, and the farmer might go over an acre of land and not sow a single seed; but not so with this; it is so constructed that it cannot possibly clog. In using this sower, the farmer can save one half of his seed, and do the work at less than one quarter the expense of the common way of sowing, and have it done in a much better manner; it opens the furrow, drops the seed, covers it over and rolls them down. It will sow any kind of Garden Seeds; say Ruta Baga, Mangel Wurtzel, Turnips, Carrots, Beets, Parsnips, Onions, &c. For sale at the New England Agricultural Warehouse and Seed Store, Nos. 51 and 52 North Market street, by JOSEPH BRECK & CO.
April 20

POUDRETTE.

For sale 200 Barrels Poudrette, at $2 per barrel, by J. BRECK & CO, 51 and 52 North Market st., Boston.
May 18.

GARDEN AND FIELD SEEDS.

JOSEPH BRECK & CO. have received their full supply of Garden and Field Seeds, which they warrant to be pure and fresh, as follows:

Early Cedo Nulli Peas.	Early Horn do.
" Warwick do.	Mangel Wurtzel Beet.
" Dwarf do.	Sugar do.
" Washington do.	Long Red do.
" Frame do.	Early Turnip do.
Blue Imperial do.	Ruta Baga.
Marrowfat, &c.	Turnips in great variety.
White Altringham Carrot	Early and Late Beans of
Long Orange do.	sorts.

AGRICULTURAL IMPLEMENTS, &c

The Proprietors of the New England Agricultural Warehouse and Seed Store No. 51 and 52 North Market street, would inform their customers and the public generally that they have on hand the most extensive assortment of Agricultural and Horticultural Tools to be found in the United States. Part of which are the following:

1000 Howard's Patent Cast Iron Ploughs.	100 doz. Cast Steel Shovels.
300 Common do. do.	150 " Common do.
200 Cultivators.	100 " Spades.
100 Greene's Straw Cutters.	500 " Grass Scythes.
50 Willis' do. do.	300 " Patent Snaiths.
100 Common do. do.	200 " Common do.
100 Willis' Patent Corn Shellers.	500 " Hay Rakes.
50 Common do do.	200 " Garden do.
200 Willis' Seed Sowers.	200 " Manure Forks.
50 " Vegetable Cutters	300 " Hay do.
50 Common do. do.	500 Pair Trace Chains.
200 Hand Corn Mills.	100 " Truck do.
200 Grain Cradles.	100 Draft do.
100 Ox Yokes.	500 Tie up do.
1500 Doz. Scythe Stones.	50 doz. Halter do.
3000 " Austin's Rifles.	1000 yards Fence do.
	25 Grind Stones on rollers.

March 17.

HOWARD'S IMPROVED EASY DRAUGHT PLOUGH.

Great improvements have been made the past year in the form and workmanship of these Ploughs; the mould board has been so formed as to *lay the furrow completely over, turning in every particle of grass or stubble, and leaving the ground in the best possible manner.* The length of the mould board has been very much increased, so that the Plough works with the greatest ease, both with respect to the holding and the team. The Committee at the late trial of Ploughs at Worcester, say,

"Should our opinion be asked as to which of the Ploughs we should prefer for use on a farm, we might perhaps say to the inquirer, if your land is mostly light and easy to work, try Prouty & Mears, but if your *land is heavy, hard orrocky,* BEGIN WITH MR. HOWARD'S."

At the above mentioned trial the Howard Plough *did more work, with the same power of team, than any other plough exhibited.* No other turned more than twenty-seven and one half inches, to the 112 lbs. draught, while the *Howard Plough turned twenty-nine and one half inches, to the same power of team!* All acknowledge that Howard's Ploughs are much the strongest and most substantially made.

There has been quite an improvement made on the shoe, or land side of this Plough, which can be renewed without having to furnish a new landside; this shoe likewise secures the mould board and landside together, and strengthens the Plough very much.

The price of the Ploughs is from $6 to $15. A Plough, sufficient for breaking up with four cattle, will cost about $10 50, and with cutter $1, with wheel and cutter, $2 50 extra.

The above Ploughs are for sale, wholesale and retail, at the New England Agricultural Warehouse and Seed Store, Nos. 51 & 52 North Market Street, by

JOSEPH BRECK & CO.

April 20

DAHLIAS.

For sale at the Agricultural Warehouse, No. 52 North Market street, a large assortment of Double Dahlias of the finest varieties. JOSEPH BRECK & CO.
Boston, May 3, 1842.

DAHLIA POLES.

JOSEPH BRECK & CO., offer for sale 1000 superior Dahlia Poles, with the bark pealed off, in bundles of 100, or by the dozen. Boston, May 3, 1842.

MISCELLANEOUS.

MR CATLIN AND HIS HORSE CHARLEY.

In a former number of our magazine, we gave an incident, extracted from Mr Catlin's interesting account of his adventures among the western Indians. We now add another story from the same work. The writer is giving an account of a long journey through the wilds of the far west.—*Merry's Museum.*

"On this journey, while Charley and I were twentyfive days alone, we had much time, and the best of circumstances, under which to learn what we had as yet overlooked in each other's characters, as well as to draw great pleasure and real benefit from what we already had learned of each other in our former travels.

"I generally halted on the bank of some little stream, at half an hour of sunset, where feed was good for Charley, and where I could get wood to kindle my fire, and water for my coffee. The first thing was to undress Charley, and drive down his picket to which he was fastened, to graze over a circle that he could inscribe at the end of his laso. In this wise he busily fed himself until nightfall; and after my coffee was made and drank, I uniformly moved him up, with his picket by my head, so that I could lay my hand upon his laso in an instant, in case of any alarm that was liable to drive him from me.

"On one of these evenings, when he was grazing as usual, he slipped the laso over his head, and deliberately took his supper at his pleasure, wherever he chose to prefer it, as he was strolling around. When night approached, I took the laso in hand, and endeavored to catch him; but I soon saw he was determined to enjoy a little freedom; and he continually evaded me until dark, when I abandoned the pursuit, making up my mind that I should inevitably lose him, and be obliged to perform the rest of my jonrney on foot. He had led me a chase of half a mile or more, when I left him busily grazing, and returned to my little solitary bivouac, and laid myself on my bear-skin and went to sleep.

"In the middle of the night I waked, whilst I was lying on my back, and on half opening my eyes, I was instantly shocked to the soul by the huge figure, as I thought, of an Indian, standing over me, and in the very act of taking my scalp! The chill of horror that paralyzed me for the first moment, held me still till I saw that there was no need of moving—that my faithful horse Charley, had 'played shy' till he had 'filled his belly,' and had then moved up, from feelings of pure affection, or from instinctive fear, or possibly from a due share of both, and taken his position with his fore feet at the edge of my bed, with his head hanging directly over me, while he was standing, fast asleep!

"My nerves, which had been most violently shocked, were soon quieted, and I fell asleep, and so continued until sunrise in the morning, when I waked, and beheld my faithful servant at some considerable distance, busily at work picking up his breakfast amongst the cane-brake, along the banks of the creek. I went as busily at work preparing my own, which was eaten; and after it, I had another half hour of fruitless endeavors to catch Charley, whilst he seemed as mindful of mischief as on the evening before, and continually tantalized me by turning round and round, and keeping out of my reach.

"I recollected the conclusive evidence of his attachment and dependence, which he had voluntarily given in the night, and I thought I would try them in another way; so I packed up my things, and slung the saddle on my back, and taking my gun in my hand, I started on my route. After I had advanced a quarter of a mile, I looked back and saw him standing, with his head and tail very high, looking alternately at me and at the spot where I had been encamped, and left a little fire burning.

"In this condition he stood and surveyed the prairies around for a while as I continued on. He at length walked with a hurried step to the spot, and seeing every thing gone, began to neigh very violently, and at last started off at the fullest speed, and overtook me, passing within a few paces of me, and wheeling about at a few rods distance in front of me, trembling like an aspen leaf.

"I called him by his familiar name, and walked up to him with the bridle in my hand, which I put over his head, as he held it down for me, and the saddle on his back, as he actually stooped to receive it. I was soon arranged, and on his back, when he started off upon his course as if he was well contented and pleased, like his rider, with the manœuvre which had brought us together again, and afforded us mutual relief from our awkward positions. Though this alarming freak of Charley's passed off and terminated so satisfactorily, yat I thought such rather dangerous ones to play, and I took good care, after that night, to keep him under my strict authority, resolving to avoid further tricks and experiments, till we got to the land of cultivated fields and steady habits."

The Picayune tells this:—An Irishman engaged a butcher to kill a hog for him. The butcher told Pat to have the water boiled early, and he would attend. In the morning he came, asked if the water was boiled, and being answered affirmatively, killed the hog, and brought him to the scalding position. He then ordered the owner to bring out the water. Pat obeyed—but judge the butcher's surprise to find the water was cold.

"Where is your boiling water?" said he.

"An sure this is the same," replied Pat; "Judy an' I *boiled it last night!* an surely we did, so as to be in sason for ye."

Exit the man of the knife, in a rage.

Wellerisms.—"I can cure you," as the smoky house said to the ham.

"This is a *grate* prospect," as the prisoner said when he peeped out of his cell window.

"You have a turn for music," as the monkey said to the organ-grinder.

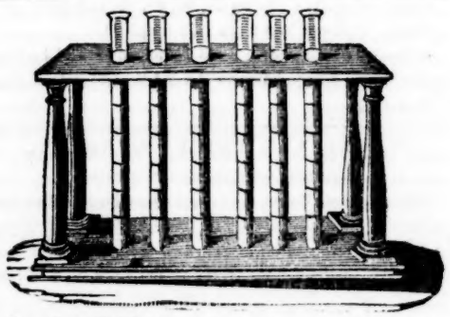
A Mr *Peck* having been elected a representative to the General Court, a joker congratulated him upon the result, and added that he might well be proud of his constituents, as they had shown themselves men of principle, and in selecting him for their representative, were doubtless governed by the motto, "*Measures*, not men."

Retort Matrimonial.—A young wife remonstrated with her husband, a dissipated spendthrift, on his conduct. "My love," said he, "I am only like the prodigal son, I shall reform by-and-by." "And I will be like the prodigal son too," she replied, "for I will arise and go to my father," and accordingly off she went.

GREEN'S PATENT STRAW CUTTER.

JOSEPH BRECK & CO. at the New England Agricultural Warehouse and Seed Store Nos. 51 and 52 North Market Street, have for sale, Green's Patent Straw, Hay and Stalk Cutter, operating on a mechanical principle not before applied to any implement for this purpose. The most prominent effects of this application, and some of the consequent peculiarities of the machine are:

1. So great a reduction of the quantum of power requisite to use it, that the strength of a half grown boy is sufficient to work it efficiently.
2. With even this moderate power, it easily cuts two bushels a minute, which is full twice as fast as has been claimed by any other machine even when worked by horse or steam power.
3. The knives, owing to the peculiar manner in which they cut, require sharpening less often than those of any other straw cutter.
4. The machine is simple in its construction, made and put together very strongly. It is therefore not so liable as the complicated machines in general use to get out of order.



LACTOMETERS—a simple instrument for testing the quality of milk. For sale by J. BRECK & CO.

DRAFT AND TRACE CHAINS.

400 pair Trace Chains, suitable for Ploughing.
200 " Truck and leading Chains.
200 " Draft Chains. For sale by J. BRECK & CO., No. 52 North Market st.

TYE UP CHAINS.

Just received by 500 Chains for tyeing up Cattle.

These chains, introduced by E. H. DERBY, Esq. of Salem, and Col. JACQUES, for the purpose of securing cattle to the stall, are found to be the safest and most convenient mode of fastening cows and oxen to the stanchion.

FLOWER SEEDS.

JOSEPH BRECK & CO., Nos. 51 and 52 North Market street, offer for sale their usual variety of Flower Seeds, comprising all that are desirable for cultivation.

Boston, March 9th, 1842.

SUN DIALS.

Just received a few of Sheldon & Moore's, Sun Dials, a very neat and useful article for the purpose of giving the time of day in the garden or field. Price 75 cents. For sale by J. BRECK & CO., No 51 and 52 North Market St.

Sept 1.

NEW ENGLAND FARMER.

A WEEKLY PAPER.

Terms, $2 per year *in advance*, or $2 50 if not paid within thirty days.

N. B.—Postmasters are permitted by law to frank all subscriptions and remittances for newspapers, without expense to subscribers.

FUTTLE AND DENNETT, PRINTERS.